

**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of

Docket No: Q63172

Michel RUFFIN, et al.

Appln. No.: 09/787,137

Group Art Unit: 2661

Confirmation No.: 6322

Examiner: Tri H. PHAN

Filed: March 14, 2001

For: A TRANSACTIONAL RECOVERY SYSTEM

**SUBMISSION OF APPEAL BRIEF**

**MAIL STOP APPEAL BRIEF - PATENTS**


Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Submitted herewith please find an Appeal Brief. The USPTO is directed and authorized to charge the statutory fee of \$500.00 and/or all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

Respectfully submitted,

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

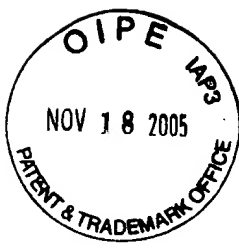
  
Ruthleen E. Uy  
Registration No. 51,361

WASHINGTON OFFICE

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Date: November 18, 2005



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**APPEAL BRIEF UNDER 37 C.F.R. § 41.37**

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 41.37, Appellant submits the following:

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**I. REAL PARTY IN INTEREST**

The real party in interest in this appeal is ALCATEL of Paris, France, the assignee. The assignment was recorded on March 14, 2001, at Reel 011744 Frame 0678.

**II. RELATED APPEALS AND INTERFERENCES**

There are no other appeals or interferences known to Appellant, Appellant's legal representative, or the assignee that will directly affect or be directly affected by, or have a bearing on, the Board's decision in this appeal.

**III. STATUS OF CLAIMS**

Claims 1-5 are pending in the present application and stand rejected.

Claims 1-2 and 4 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Gilbert et al. (U.S. Patent No. 5,530,848; hereinafter “Gilbert”)

Claims 3 and 5 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Gilbert in view of Ngai et al. (U.S. Patent No. 5,850,507; hereinafter “Ngai”).

A copy of the claims on appeal is set forth in an attached Appendix.

**IV. STATUS OF AMENDMENTS**

Amendments to the claims were submitted in an Amendment Under 37 C.F.R. § 1.111 filed November 23, 2004, in response to the Office Action dated August 24, 2004. Amendments to the claims were submitted in an Amendment Under 37 C.F.R. § 1.116 filed July 25, 2005, in response to the Office Action dated April 26, 2005. All amendments are believed to have been previously entered and made of record. The Advisory Action dated August 16, 2005, states that the amendments to the claims submitted in the Amendment Under 37 C.F.R. § 1.116 filed July 25, 2005, will be entered for purposes of Appeal. Further, the Advisory Action states that Appellant's arguments submitted in the Amendment Under 37 C.F.R. § 1.116 filed July 25, 2005, in response to the Final Office Action dated April 26, 2005, have been considered, but did not place the application in a condition for allowance.

**V. SUMMARY OF THE CLAIMED SUBJECT MATTER**

Appellant's invention as recited in independent claims 1 and 3 is related to communication channels and methods of communication between a set of transaction initiators and consumers.

A transaction in transactional communications must satisfy four properties: atomicity (guarantees that either all or none of the updates of a transaction are affected), consistency (semantic consistency of a set of data), isolation (guarantees that each transaction sees a consistent state of a set of data) and durability (guarantees that updates of a validated transaction are permanent. See Appellant's specification at page 1, lines 17-21 and 23-24; page 2, lines 17-30. An exemplary embodiment of the present invention improves devices associated with durability. See Appellant's specification at page 3, lines 4-6.

**Claim 1**

A communication channel comprising a set of transaction initiators and consumers (page 1, lines 10-16) connected by said communication channel, and a logging service (page 4, lines 5-7) associated with said communication channel comprising an XA/RO interface (page 4, lines 17-19) to enable a transactional system to perform transactional operations on data stored in said logging service. See Appellant's specification at page 3, lines 29-35.

**Claim 3**

A method of communication between a set of transaction initiators and consumers (page 1, lines 10-16), including intermediate communication channels, comprising validating an

operation in a logging service (page 4, lines 5-7) having an XA/RO interface (page 4, lines 17-19); and storing the operation to enable recovery of validated transactional operations (page 4, lines 13-16). See Appellant's specification at page 3, line 36 to page 4, line 5.



**VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

1. Claims 1-2 and 4 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Gilbert.
2. Claims 3 and 5 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Gilbert in view of Ngai.

**VII. ARGUMENT**

**1. Claims 1-2 and 4 are patentable over Gilbert**

Claims 1-2 and 4 have been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Gilbert.

As explained in Appellant's specification, a "transactional" interface supports atomicity, consistency, isolation, and durability. (See Appellant's Specification at page 1). Thus, a transactional interface requires, for example, the ability to atomically "commit" or "abort" a sequence of operations as part of a logical "transaction." (See Id.).

Appellant's "transactional system" differs from "transaction processing," wherein, although internal or external transactional interfaces may be used, the primary purpose of the system is processing consumer transactions, for example, consumer purchasing transactions. A particular interface or communication, however, is not "transactional," as understood by one of ordinary skill in the art, unless it supports the above-described functionality.

**A. Claim 1**

Claim 1 recites "a logging service associated with said communication channel comprising an XA/RO interface to enable a transactional system to perform transactional operations on data stored in said logging service." The portions of Gilbert cited by the Examiner fail to disclose a logging service comprising an XA/RO interface, and fail to disclose a logging service with the ability to accept transactional operations on its data. For example, as noted in Appellant's Response filed on November 23, 2004, Gilbert merely describes "interfacing an external process or processes to a transaction processing system."

The Examiner alleges that Gilbert anticipates claim 1 by disclosing the following:

- (1) “input receive modules within the input receive subsystem . . . employed to interface to multiple external applications for receiving input messages;”
- (2) a “communications monitor subsystem [that] monitors . . . the outbound communication process;” and
- (3) a “communications monitor subsystem . . . [that] provides [a] confirming or aborting message to the communications log service.” (See Office Action of April 26, 2005 at pages 7-8).

Appellant respectfully submits that the features of claim 1 are not anticipated by these alleged disclosures of Gilbert. Additionally, it appears that the Examiner may be misconstruing the disclosure of Gilbert.

In support of the first alleged disclosure of Gilbert, the Examiner relies on Fig. 1 and col. 9, lines 33-44 of Gilbert. (Office Action of April 26, 2005 at page 7). In Fig. 1, an “Input Receive Subsystem” 162 receives messages 132 and may return “confirmation” 144 that it has received messages 132. (See Gilbert at Fig. 1; Fig. 4 step 410). Furthermore, at col. 9 lines 33-44, Gilbert discloses receiving input messages from external applications using “different protocols.” The portions of Gilbert relied on by the Examiner, however, fail to disclose the claimed transactional system.

For example, these portions do not disclose an interface that allows external applications to commit or abort transactions. Instead, Gilbert merely describes that when external messages are received, the receipt of those messages may be confirmed with a response, as is well-known

in the art. In contrast, claim 1 recites “an XA/RO interface to enable a transactional system to perform transactional operations on data stored in said logging service.” Thus, the XA/RO interface of claim 1 supports transactional operations, which the Input Receive Subsystem 162 and the other disclosed elements of Gilbert do not.

In support of the second alleged disclosure of Gilbert, the Examiner relies on Figs. 8, 14-16; col. 8, lines 59-65; and col. 11, lines 35-45. (Office Action of April 26, 2005 at page 7). These portions of Gilbert disclose the operation of the communications monitor subsystem 110, which monitors the interface system status to ensure that outbound communications are handled correctly. For example, Gilbert discloses that the “[c]ommunications monitor subsystem manages multiple occurrences of the outbound communication process, insuring that only one task is started for each destination, and that the messages are communicated in the correct order.” (Gilbert at col. 8, lines 59-65). The Examiner also relies on Gilbert’s disclosure that the monitor subsystem 112 sends a “timing strobe,” which polls certain processes to act when no other event has been triggered. (Gilbert at col. 11, lines 35-45). These portions of Gilbert, however, fail to disclose the operation of a transactional interface. Instead, these portions of Gilbert merely disclose the management of internal polling, triggering, and event firing.

In support of the Examiner’s third alleged disclosure of Gilbert, the Examiner relies on Figs. 1 and 4; Abstract; col. 2, line 65 - col. 3 line 20; col. 12, lines 27-31; and col. 17, lines 28-44. (Office Action of April 26, 2005 at page 8). Specifically, the Examiner alleges that these portions of Gilbert disclose “confirm[ing] or cancel[ing] modifications to logged data.” It is respectfully submitted that the Examiner is misconstruing the language from page 4 of

Appellant's specification, as also described on page 4 of Appellant's response of November 23, 2004. Appellant's response of November 23, 2004 reads: "As described on page 4 of the specification for the present invention, in an exemplary embodiment of the invention, an RO or XA interface enables an external transaction monitor to confirm or cancel modifications to logged data and recover data." By this language, Appellant intended to communicate that the XA/RO interface enables external applications to send commit or abort commands to commit or abort their transactional operations on logged data and recover data in a logging service. Appellant used the terms "confirm" and "cancel" in the quoted sentence as equivalent to the terms "commit" and "abort," referring to the above-described instructions commonly required for a transactional interface.

Consequently, the Examiner erred in stating that "the feature upon which Appellant relies (i.e., confirm or cancel modifications), is not recited in the rejected claim(s)." (Office Action of April 26, 2005 at page 7). This functionality is part of the "RO/XA interface" and the "transactional operations" recited in claim 1. Even without the express disclosure on page 1 of Appellant's specification, one of ordinary skill in the art would recognize that transactional operations commonly require such commit/abort functionality.

The Gilbert Abstract, relied on by the Examiner, discloses that the "interface system sends a confirmation to the external process indicating that the message has been received." Gilbert also discloses "an interface to the SAP system that provides acknowledgment to external applications upon receipt of a message," and "[c]onfirm[s] receipt of a message from an external application." (Gilbert at col. 2, line 65 - col. 3, line 20). Gilbert further discloses receiving

messages from external applications, confirming receipt, and acting on each message. (Gilbert at col. 12, lines 27-31). Conversely, claim 1 recites an “XA/RO interface” and “transactional operations” which allow an external process to commit or abort a transaction. It is respectfully submitted that an external process sending a commit or abort message to a transactional interface is clearly different from the disclosure of Gilbert, wherein a “confirmation to the external process” is sent. In addition to having different functions and purposes, these messages also have different senders and receivers. In Gilbert, an external process is the receiver of a confirmation message. Conversely, in claim 1, an external process is the sender of a commit instruction. Thus, the mere confirmation of receipt of a message is different from sending a commit message to an interface with transactional support.

The Examiner further alleges that Gilbert discloses the “XA/RO interface” recited in claim 1. (Gilbert at col. 2, lines 21-38; col. 3, lines 24-26). Gilbert, discloses systems such as SAP with the ability to interface with external applications through messages that “can include data to be sent to the transaction processing system and instructions telling [it] how to operate on that data.” (Gilbert at col. 2, lines 21-38). Gilbert further discloses “interfacing an external process . . . to a transaction processing . . . system.” (Gilbert at col. 3, lines 24-26). These portions of Gilbert, relied on by the Examiner, fail to disclose any transactional interface. Instead, these portions of Gilbert merely disclose a generic interface to a transaction processing system.

Thus, Gilbert clearly does not disclose an interface that implements the commit/abort functionality commonly required of a transactional interface, such as the “XA/RO interface”

recited in claim 1. Instead, Gilbert merely discloses a non-transactional interface by which external processes may send messages to be processed, and receive back confirmation regarding the status of those messages.

The Examiner also alleges that Gilbert “enables the transactional system to perform transactional operations on data stored in said logging service.” (See Gilbert at col. 4, lines 5-21; col. 8, lines 47-50). Gilbert discloses a trigger subsystem which “indicates to the transaction processing system that a message has been received by the interface system and is ready to be processed.” (Gilbert at col. 4, lines 5-21). Accordingly, Gilbert merely discloses responding to receipt of a message with a confirmation message, or acknowledgment, which is well-known in the art. Gilbert, however, does not disclose that such communication is transactional in nature, or that the trigger subsystem works through an interface sufficient to “enable . . . transactional operations on data stored in said logging service,” as recited in claim 1.

Gilbert further discloses that a status subsystem receives processing status messages from the transaction processing system, and updates a log file. (Gilbert at col. 8, lines 47-50). These portions of Gilbert describe that an acknowledgment subsystem scans the log file and updates control records to indicate whether processing of a message is complete, and discloses “finish[ing]” records when transaction processing is complete or an error has occurred. Thus, Gilbert merely describes that the status subsystem updates a status indicator in the log file, in order to indicate whether processing of a message is complete, i.e., whether the message has been handled by the transaction processing system. “[F]inish[ing]” a record refers to setting the status of a record to “finished,” thereby indicating that the record has finished being processed.

Setting the status of a record is not the same as committing a set of transactional steps in a transactional communications system. Instead, Gilbert directly, non-transactionally manipulates status values within the log file.

For at least the above exemplary reasons, Gilbert fails to anticipate claim 1. Accordingly, Appellant respectfully requests that the rejection of claim 1 be withdrawn.

**B. Claims 2 and 4**

It is respectfully submitted that claims 2 and 4, which depend from claim 1, are not anticipated by Gilbert, at least by virtue of their dependency. Consequently, claims 2 and 4 should be deemed allowable.

**2. Claims 3 and 5 are patentable over Gilbert in view of Ngai.**

Claims 3 and 5 have been rejected under 35 U.S.C. § 103(a) as being obvious over Gilbert in view of Ngai.

**A. Claim 3**

Claim 3 recites “a logging service having an XA/RO interface.” Gilbert, as extensively described above with regard to claim 1, fails to disclose a logging service having an XA/RO interface, or any other transactional interface.

With regard to claim 3, the Examiner further relies on Gilbert’s disclosure of error handling mechanisms using an “ABORT\_FLAG,” and an “ISSUEERROR” command. (See Gilbert at col. 17, lines 28-44; col. 27, lines 4-19). The “ABORT\_FLAG” is a boolean flag in the file header of a message received during “input receive processing,” which is read only when an error occurs in processing a chain or set of messages. (See Gilbert at col. 17, lines 28-44).



This flag is read in order to determine how to properly handle the input error, i.e., by aborting the chain or set of messages, or by allowing the messages to process. (See Id.). This portion of Gilbert, therefore, merely discloses an error handling mechanism, and not a transactional interface as recited in claim 3. Furthermore, the “ISSUEERROR” command disclosed in Gilbert is “sent to the external application” if “an error is encountered while sending a communication.” (Gilbert at col. 27 lines 4-19). This is not the same as an XA/RO interface on a logging service, enabling an external application to abort a transaction. This portion of Gilbert, therefore, merely describes a method of communicating error information to an external application, and fails to disclose an XA/RO interface, as recited in claim 3.

Thus, Gilbert fails to teach or suggest “a logging service having an XA/RO interface,” as recited in claim 3, and would not have enabled the artisan of ordinary skill to achieve all of the claimed subject matter without further untaught modifications.

Additionally, the Examiner’s reliance on Ngai fails to cure the exemplary deficiencies of Gilbert, as explained above. The Examiner relies on Ngai to allegedly cure Gilbert’s failure to “teach the ‘*enable recovery of validated transactional operations*’.” (emphasis in original). Even if Ngai were to cure this particular deficiency of Gilbert, Appellant respectfully submits that Ngai still remains deficient because Ngai fails to teach or suggest “a logging service having an XA/RO interface.” Although Ngai does disclose a “redo log,” (Ngai at col. 1 lines 40-52) Ngai fails to disclose the type of interface used with this redo log, and fails to teach or suggest the form or function of such an interface. Ngai, therefore, fails to teach or suggest “a logging service having an XA/RO interface,” as recited in claim 3. Since Gilbert also fails to teach or

suggest this element of claim 3, as described above, claim 3 should be deemed patentable over Gilbert and Ngai, alone or in combination. Accordingly, Appellant respectfully requests that the rejection of claim 3 be withdrawn.

**B. Claim 5**

It is respectfully submitted that the portions of Ngai cited by the Examiner fail to make up for the exemplary deficiencies of Gilbert with respect to claim 1, from which claim 5 depends. For example, although Ngai discloses a “redo log,” (Ngai at col. 1, lines 40-52). Ngai does not describe the interface to this redo log. Ngai fails to teach or suggest any particular form or function for the redo log interface, and thus fails to teach or suggest “a logging service . . . comprising an XA/RO interface,” as recited in claim 5. Gilbert also fails to teach or suggest this element of claim 5, as described above with regard to claim 1, so the combination of Gilbert in view of Ngai fails to teach or suggest these elements of claim 5 as well. Claim 5 should therefore be deemed patentable over Gilbert and Ngai, alone or in combination. Accordingly, Appellant respectfully requests that the rejection of claim 5 be withdrawn.

**VIII. CONCLUSION**

Unless a check is submitted herewith for the fee required under 37 C.F.R. §41.37(a) and 1.17(c), please charge said fee to Deposit Account No. 19-4880.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

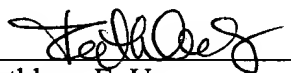
Respectfully submitted,

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

  
\_\_\_\_\_  
Ruthleen E. Uy  
Registration No. 51,361

Date: November 18, 2005

**CLAIMS APPENDIX**

**CLAIMS 1-5 ON APPEAL:**

1. A communication channel comprising:  
a set of transaction initiators and consumers connected by said communication channel,  
and  
a logging service associated with said communication channel comprising an XA/RO interface to enable a transactional system to perform transactional operations on data stored in said logging service.
2. A transactional communication system according to claim 1, using a plurality of communication channels.
3. A method of communication between a set of transaction initiators and consumers, including intermediate communication channels, comprising:  
validating an operation in a logging service having an XA/RO interface; and  
storing the operation to enable recovery of validated transactional operations.
4. A communication channel according to claim 1, wherein the XA/RO interface enables a monitor to apply correct termination of a transactional operation or incorrect termination of a transactional operation to the logged data to confirm or cancel changes.
5. A communication channel according to claim 1, wherein the logging service stores all successive values of a variable and retains old values.

**EVIDENCE APPENDIX:**

None.

**APPEAL BRIEF UNDER 37 C.F.R. § 41.37**  
**U.S. Application No. 09/787,137**

**Docket No. Q63172**

**RELATED PROCEEDINGS APPENDIX**

None.